

tape adhered on the surface of a plate-shaped member and fragmented in chip-size pieces from the plate-shaped member, and is available in the field of manufacturing of optical devices and electronic components such as lenses, wavelength converting device and the like, other than the field of semiconductor manufacturing.

CLAIMS

[Claim 1]

An apparatus for peeling an adhesive tape adhered on a surface of a plate-shaped member and fragmented in chip-size pieces from said plate-shaped member, said adhesive tape peeling apparatus characterized by comprising:

peeling tape supplying means for feeding a peeling tape to said plate-shaped member set on a suction table;

peeling tape adhering means for adhering the peeling tape fed out by said peeling tape supplying means over an entire surface of said adhesive tape adhered on the surface of the plate-shaped member;

heating means for heating the peeling tape adhered on the entire surface of the adhesive tape by said peeling tape adhering means together with the adhesive tape;

peeling means for peeling the adhesive tape sticking to the peeling tape through heating by said heating means from the plate-shaped member together with the peeling tape; and

collecting means for collecting the adhesive tape and the peeling tape peeled from the plate-shaped member by said tape peeling means.

[Claim 2]

An adhesive tape peeling apparatus according to claim 1, characterized in that a continuous sheet-shaped tape is used as said peeling tape, and said peeling tape adhering means and said tape peeling means are implemented by a common roller unit.

[Claim 3]

An adhesive tape peeling apparatus according to claim 1,

characterized in that a tape previously cut in conformity of the surface shape of said plate-shaped member is used as said peeling tape, wherein a second adhesive tape adhered to an end of the peeling tape is held and pulled by a peeling head, thereby peeling said adhesive tape from the plate-shape member together with the peeling tape.

[Claim 4]

An adhesive tape peeling apparatus according to claim 1, characterized in that said adhesive tape comprises an adhesive layer deposited on a heat-shrinkable base.

[Claim 5]

An adhesive tape peeling apparatus according to claim 4, characterized in that said adhesive layer of the adhesive tape is made of an ultraviolet curable adhesive, wherein said apparatus further comprises an ultraviolet ray irradiating means for irradiating the adhesive tape with ultraviolet rays.

[Claim 6]

An adhesive tape peeling apparatus according to claim 1, characterized by comprising cooling means for cooling the peeling tape and the adhesive tape heated by said heating means.

[TITLE OF DOCUMENT] ABSTRACT

An apparatus for peeling an adhesive tape is provided for enabling fragmented adhesive tapes to be readily and efficiently peeled from a plate-shaped member.

The apparatus for peeling a surface protection tape (adhesive tape) 2a adhered on the surface of a wafer (plate-shaped member) W and fragmented into chip-size pieces from the wafer W comprises peeling tape supplying means 20 for feeding a peeling tape 3 to the wafer W set on a suction table 10; peeling tape adhering means for adhering the peeling tape 3 fed out by the peeling tape supplying means 20 over the entire surface of the surface protection tape 2a adhered on the surface of the wafer W; heating means for heating the peeling tape adhered over the entire surface of the adhesive tape by the peeling tape adhering means together with the adhesive tape; tape peeling means for peeling the adhesive tape sticking to the peeling tape through the heating by the heating means from the plate-shaped